On the Scaritidæ of New Holland,

By William MacLeay, Junr., Esq., M.L.A.

3rd Paper.

[Read 6th March, 1865.]

On each of the two former occasions on which I contributed a Paper on the *Scaritidæ* of New Holland, I believed that I had exhausted, at all events for some time, the species of the genus *Carenum*.

In adding now twenty new species to that genus, I feel much less certain of the completeness of my monograph than I did on the occasion of my first Paper.

As we receive collections from newly occupied portions of this immense continent, and as we become better acquainted with the Entomology of old localities, it becomes evident that we have yet much to learn, both as regards the numbers and the habits of this strictly Australian genus.

But though species seem to abound, specimens are far from numerous. It is rare, indeed, to find in the best collection, more than five or six specimens, representing perhaps as many species, and quite one-half of those which I have described are unique.

This extreme rarity may be accounted for, partly by the limited range of some of the species, and to a still greater extent, perhaps, by the difficulty of finding them owing to their deeply subterranean habits.

For some of the species described in this Paper, I am again indebted to Mr. F. G. Waterhouse of South Australia, to whose kindness I am also indebted for specimens of those previously described by me, with notes of the localities in which they were found.

1.—Carenum nigerrimum.

Nigrum nitidissimum subangustum, elytris subconvexis punctis duobus ad humeros alterisque duobus versus apicem impressis, tibiis anticis extus bidentatis.

Long. 11 lin., lat. $3\frac{1}{4}$ lin.

Hab. South Australia.

This species is entirely of a brilliant black. The facial

grooves are almost parallel, diverging slightly in front towards the anterior angles of the head. The thorax is longer than broad, truncated in front, rounded, and somewhat lobed behind, with slightly reflexed lateral margins, and a slight depression near each posterior angle. The elytra are oblong, convex, and parallel-sided, and are marked with four punctures, one close to each humeral angle, the others near the apex. The fore tibiæ are bidentate externally.

2.—Carenum ambiguum.

Nigrum nitidum subangustum, thorace posticè utrinque foveolato, elytris quadripunctatis, tibiis anticis extus bidentatis.

Long. 7½ lin., lat. 2 lin.

Hab. King George's Sound.

The colour is black, inclining to pitchy. The facial grooves are rather more curved than in the last described species. The thorax is truncate in front, and rather rounded behind, with parallel sides, and a round shallow depression near each posterior angle. The elytra taken together are of an elongated oval form, and are marked with four impressed punctures, one near each shoulder, the others near the apex. The fore tibiæ are bidentate externally.

3.—Carenum subquadratum.

Nigrum subnitidum oblongum subplanum, thorace subquadrato, elytris quadripunctatis, tibiis anticis extus bidentatis.

Long. 10 lin., lat. 3 lin.

Hab. South Australia.

This insect is of a rather dull black. The facial grooves are nearly parallel. The thorax is nearly as broad as long, with the base rounded and margined, and with a shallow depression near each posterior angle. The elytra are rather flat, and, when taken together are of an oblong form, widening slightly towards the apex. They are marked with four punctures, two near the base and two near the apex. The fore tibiæ are bidentate externally.

The specimen from which the foregoing description was taken, is in the collection of the late William Sharp MacLeay,

Esq., and is marked as having been sent to him by G. F. Angas, Esq.

4.—Carenum striato-punctulatum.

Nigrum nitidum subangustum, elytris subconvexis quadripunctatis leviter striato-punctulatis, tibiis anticis extus bidentatis.

Long. 10 lin., lat. 3 lin.

Hab. Murrumbidgee.

The whole insect is of an uniform shining black. The facial grooves are somewhat parallel and tortuous. The thorax is smooth, with the medial line slightly impressed, and the posterior angles rounded. The elytra are rather convex, with a puncture on each near the shoulder and another towards the apex, and with dimly defined punctured striæ over their whole surface. The fore tibiæ are bidentate externally.

I have never seen but one specimen of this insect. It is in the cabinet of the late W. S. MacLeay, Esq.

5.—Carenum coracinum.

Nigrum nitidissimum subangustum, capite bisulcato sulcis obliquis, elytris convexis quadripunctatis tenuiter viridi-marginatis, tibiis anticis extus bidentatis.

Long. 10½ lin., lat. 3 lin.

Hab. Ipswich, Queensland.

This species is of a brilliant black. The facial grooves are deep and converge towards the front of the head. The base of the thorax is rather broadly margined. The elytra are slightly margined with green, and are twice as long as broad, with two punctures on each, one near the shoulder the other near the base.

One specimen of this insect was found by Mr. Masters, near Ipswich, during last winter.

The five species just described belong to the first group in the table of the species of *Carenum* which I have given in page 146 of the 2nd part of our Transactions, and as this brings the number of the species in the group up to ten, all in some degree resembling one another, a brief recapitulation of their chief distinctive characters has become almost necessary.

The first *C. quadripunctatum* from Port Denison, is narrower

and more convex than *C. Scaritioides* which we may take as the type of the group, besides which it is of a beautiful violet-blue colour, while the facial grooves take their rise almost behind the eyes and converge towards the clypeus. In *C. Scaritioides* the facial grooves are almost parallel

C. atronitens which is found near Gawler Town, South Australia, is flatter than either of the preceding, and has the facial grooves widely divergent behind.

C. oblongum also from the neighbourhood of Adelaide, is smaller, and differs somewhat in form from the typical insects of the group. In appearance, it is much like *C. intermedium* and *C. ambiguum*, and it seems to lead off towards the parallel group of which *C. Bonellii* is the type.

Of *C. intermedium*, I have one specimen from Melbourne, it is very like the last named species, and will be best recognised by the almost obliterated middle of the medial line of the thorax.

C. nigerrimum is very like *C. scaritioides*, but can be at once distinguished from it by the position of the two humeral punctures, which are very close to the humeral angles.

C. ambiguum may be most readily distinguished from *C. oblongum* by the round shallow fovea near the posterior angles of the thorax.

C. subquadratum differs from all the others in its flat surface and nearly square thorax.

C. striato-punctulatum can be identified by the sculpture of the elytra, which present a series of rows of punctures, so indistinct, however, as to be scarcely visible to the naked eye.

C. coracinum may be distinguished from *C. scaritioides*, the species it most resembles, by the divergence of the facial grooves towards the back of the head.

I may here mention that I think that I have made a mistake in stating in page 37 of our Transactions, that *C. Scaritioides* is an inhabitant of South Australia and King George's Sound. I have not seen it from either of these colonies.

6.—Carenum substriatulum.

Nigrum nitidissimum angustum, elytris violaceo-marginatis sub lente striato-punctatis postice bipunctatis, tibiis anticis extus bidentatis.

Long. 9 lin., lat 2 lin.
Hab. Richmond River.

This insect is of an elongated form, and of a brilliant black. The head and thorax are like those of *C. tinctillatum*. The elytra are jet black, narrowly margined with violet, and are seen to be marked with punctured striæ when examined with a powerful lens. The fore tibiæ are bidentate externally.

7.—Carenum subrugosulum.

Nigrum nitidissimum angustum, elytris subviolaceis sub lente rugosis posticè bipunctatis, tibiis anticis extus bidentatis.
Long. $8\frac{1}{2}$ lin., lat. 2 lin.
Hab. New Holland.

In form and colour this species resembles *C. tinctillatum*, its distinguishing marks being a deep impression at the base of the thorax on each side of the medial line, and the appearance under a lens of transverse wrinkles on the elytra.

The only specimen I know of this insect is in the collection of the late W. S. MacLeay, Esq. It is labelled "New Holland."

8.—Carenum glaberrimum.

Nigrum nitidum angustum, elytris glaberrimis violaceo-marginatis posticè bipunctatis, tibiis anticis extus bidentatis.
Long. 8 lin., lat. 2 lin.
Hab. New South Wales.

This species is smaller than the two preceding, and is of a less brilliant black. The elytra are perceptibly narrower than the thorax, but this is the case to some extent throughout all this group. The elytra are also narrowly margined with a violet tinge, and are without any visible sculpture. This insect is also represented by a single specimen in the late Mr. MacLeay's collection.

9.—Carenum undulatum.

Nigrum nitidissimum angustum, elytris violaceo-marginatis sub lente striis undulatis tenuiter notatis posticè bipunctatis, tibiis anticis extus bidentatis.
Long. 9 lin., lat. $2\frac{1}{4}$ lin.
Hab. Wingelo.

This species is of a brilliant black. The head and thorax are as in *C. tinctillatum*. The elytra are slightly narrower at the base than near the apex, and are marked with indistinct wavy striæ, only visible under a powerful lens.

I found one specimen of this insect last spring, under a stone near Wingelo, on the road to Goulburn.

The four last described insects belong to the second group in my table of species. *C. tinctillatum* and *C. bipunctatum* being the only ones previously described. They are all so much alike, that without the closest inspection, they cannot possibly be distinguished.

10.—Carenum riverinæ.

Nigrum nitidum subcyaneum, abdomine ovato, elytris violaceis quadripunctatis, tibiis anticis extus bidentatis.

Long. 10 lin., lat. 3 lin.

Hab. Lower Murrumbidgee.

This species is of a glossy greenish, or bluish black above, (excepting the elytra, which are of a violet colour) and black beneath, with the antennæ palpi and legs of a piceous hue. The mandibles are strong. The forehead is deeply bisulcated, the sulci extending obliquely forwards from behind the eyes. The thorax is broader than long, almost truncate in front, rounded at the posterior angles, and slightly emarginate at the base; the medial line is deepest in the middle, and is crossed throughout, but particularly in its basal half, with minute scratches. The posterior angles are marked with longitudinal impressions. The elytra taken together, are of an elongated oval shape, with a puncture near the apex of each, and another of less size close to each humeral angle, there are also a few punctures along the lateral margins, and on the basal margin. The fore tibiæ are bidentate externally.

I captured two specimens of this very handsome species last winter, at Kerarbury, on the Lower Murrumbidgee. I have given it the name by which that district is now generally known.

11.—Carenum interruptum.

Nigrum nitidum, elytris purpureo-marginatis, quadripunctatis

subtiliter striatis striis interruptis subrimosis, tibiis anticis extus bidentatis.

Long. 11 lin., lat. $3\frac{1}{2}$ lin.

Hab. Wingelo, and Dabee.

This species is of a moderately glossy black with a slight purplish tinge about the margins. The facial grooves converge slightly in front. The thorax is broad, nearly truncate in front, and rounded and slightly lobate behind. The elytra are covered with indistinct wavy and somewhat interrupted striæ, and have each two punctures, one near the base, the other near the apex. The fore tibæ are bidentate externally.

I found this species in considerable numbers last spring at Wingelo, on the Goulburn road. A specimen of the same insect in the Museum, was taken by Mr. Masters at Dabee, near Mudgee.

12.—Carenum obscurum.

Nigrum nitidum tenuiter violaceo-marginatum, elytris obscuris quadripunctatis sub lente subreticulosis, tibiis anticis extus bidentatis et bituberculatis.

Long. $7\frac{1}{2}$ lin., lat. 3 lin.

Hab. New South Wales.

This species, though much smaller, most resembles *C. interruptum*, it may, however, readily be distinguished from it, by the duller appearance of the elytra, and by the neurose character of the sculpture. The fore tibiæ also have two or three small tubercles above the two external teeth, as is the case in *C. marginatum*, and the other species of that group.

The insect is in the late Mr. MacLeay's collection, and is labelled New South Wales.

13.—Carenum simile.

Nigrum subnitidum, thorace subquadrato, abdomine ovato, elytris quadripunctatis, tibiis anticis extus bidentatis.

Long. $7\frac{1}{2}$ lin., lat $2\frac{1}{4}$ lin.

Hab. Brisbane, Queensland.

This insect most resembles *C. affine*, it differs from it chiefly in the shape of the abdomen which in this species is a broad oval.

The facial grooves converge considerably towards the front. The thorax is nearly as long as broad, and is marked with fine transverse striolæ. The elytra have two punctures at some distance from their base, and other two at about the same distance from their apex. The fore tibiæ are bidentate externally.

The four insects last described belong to the group of which *C. Bonellii* is the type. Unlike the two groups previously mentioned, there is not much general resemblance among the nine species which compose the present one. *C. affine* and *C. simile* are somewhat alike, and *C. undulatum* and *C. obscurum* are also alike, but the other species are distinct in every way.

I may mention that *C. viridipenne*, described by Westwood, as from New England, corresponds pretty accurately with a species I have received from Rockhampton, and which, until I know better, I shall regard as that species.

14.—Carenum Murrumbidgense.

Nigrum nitidum, thorace elytrisque latè violaceo-marginatis, his indistinctè striatis versus apicem bipunctatis, tibiis anticis extus bidentatis.

Long. $7\frac{1}{2}$ lin., lat. $2\frac{3}{4}$ lin.

Hab. Murrumbidgee.

This species is not unlike the type of the group, *C. marginatum*, it differs from it in being much smaller and in having a broad violet coloured margin to the thorax and elytra. The head also differs in having the facial grooves connected together behind by a shallow semicircular depression. The elytra are indistinctly striated as in *C. marginatum*, and the fore tibiæ which are bidentate externally have two minute teeth above the others, as is also the case in the typical species.

A single specimen in the collection of the late W. S. MacLeay, Esq.

15.—Carenum laterale.

Nigrum nitidum, thorace violaceo-marginato anticè truncato posticè subtruncato angulis posticis rotundatis, elytris subnitidis viridi-marginatis posticè bipunctatis, tibiis anticis extus bidentatis.

Long. 10½ lin., lat. 4 lin.

Hab. New Holland.

This species differs from *C. marginatum* in having the thorax truncated in front; while the base, instead of being slightly emarginate as in the latter, is also truncate. The facial grooves are rather more parallel than is usual in the group. The elytra are margined with green, and are much less distinctly striated than those of *C. marginatum*. The fore tibiæ are bidentate externally without the additional tubercles usual in the group.

I have no idea what part of the country this insect comes from,—it is in the collection of the late W. S. MacLeay, Esq.

16.—Carenum subporcatulum.

Nigrum nitidum viridi-marginatum, elytris sub lente porcatis porcis subtilissimè striatis posticè bipunctatis, tibiis anticis extus bidentatis.

Long. 11 lin., lat. 4 lin.

Hab. Wide Bay and Ipswich.

I have long believed this insect to be distinct from *C. marginatum*, but have hitherto failed to make out a good specific character. It is, in almost every respect, exactly like the last named species, excepting in the sculpture of the elytra, which, in *C. marginatum*, are marked with very fine striæ in indistinct depressions; whereas in this species the striæ are on indistinct elevations.

I have a specimen of this insect from Wide Bay, and there are two specimens in the Museum from Ipswich.

17. Carenum striato-punctatum.

Nigrum nitidum, thorace posticè rotundato, elytris elongatis striato-punctatis posticè bipunctatis.

Long. 10½ lin., lat. 4 lin.

Hab. Daly Waters, North Australia.

This insect is very distinct from the rest of this group. The facial grooves form nearly a semicircle commencing behind the eyes, converging towards the middle of the face and then diverging. The thorax is rounded away towards the posterior

angles, and is rounded and almost lobate behind. The elytra taken together are of an oblong oval shape with the base somewhat scooped out. They have each seven rows of very fine punctures, and one large puncture about a third from the apex between the fourth and fifth row. In my specimen the legs are wanting as are also the antennae, palpi, &c.

I place this species in the *C. marginatum* group, simply because it answers to two of the chief characters of that group, viz., thorax broader than long, and elytra bipunctate. The specimen is so imperfect however that I cannot fix its position with any certainty. It is one of the many rare things, for which I am indebted to F. G. Waterhouse, Esq., of the South Australian Institute.

18. Carenum frontale.

Nigrum nitidum, capite fronte bipunctato, elytris subviolaceis posticè bipunctatis, tibiis anticis extus bidentatis.

Long. 9. lin., lat. 3 lin.

Hab. Wallaroo, South Australia.

For this insect I am also indebted to Mr. Waterhouse. The facial grooves are nearly straight, and between them in the middle of the face are two large punctures placed horizontally. The thorax is slightly emarginate behind, as is *C. marginatum*. The elytra are of a violet hue margined with green, and have two punctures towards their apex. The fore tibiae are bidentate externally, with three minute teeth above.

The last five species belong to the group of my table, of which *C. marginatum* is the type. Of the species now comprising that group, *C. marginatum laevigatum*, *puncticolle*, *punctulatum*, *Murrumbidgense*, *laterale*, and *subporcatulum*, are all so much alike, that the closest observation is necessary to make out the specific characters. I have, however, I hope, sufficiently marked them out in the description I have given of each species. Of the other three species composing the group, *C. scitulum* most resembles *C. Bonellii*, *C. frontale* seems to approach to some of the tridentate species, while *C. striato-punctatum* is entirely "*sui generis*."

19.—Carenum subcostatum.

Nigrum subnitidum viridi-marginatum, elytris indistinctè striatis interstitiis subcostatis, tibiis anticis extus bidentatis.

Long. 7 lin., lat. $2\frac{3}{4}$ lin.

Hab. Clarence River.

This pretty little species I received for the first time from the Clarence River a few months ago.

It is of a rather dull black,—particularly on the elytra, which have a somewhat ribbed appearance, though of an indistinct character. The facial grooves take their rise behind the eyes, and the thorax and abdomen are margined with green. This insect belongs to the group which consists of *C. politum*, *lævipenne*, and *perplexum*.

20.—Carenum campestre.

Nigrum nitidissimum viridi-marginatum thorace late marginato posticè rotundato sublobato, abdomine ovato, elytris subviolaceis striatis posticè bipunctatis, tibiis anticis extus tridentatis.

Long. 9 lin., lat. 3 lin.

Hab. Lower Murrumbidgee.

This beautiful species has some general resemblance to *C. elegans*. The facial grooves converge in front from behind the eyes, and then turn outwards at nearly right angles. The thorax is almost semi-circular in form, and is slightly lobate at the base. The elytra—which, like the rest of the upper surface, are of a brilliant green with a violet tinge—are marked with rather dim broad, shallow striæ, and have a deep puncture near the apex. The fore tibiæ are tridendate externally.

I found one specimen of the above last winter on the plains of the Lower Murrumbidgee. The group to which this insect belongs consists of *C. coruscum*, *smaragdulum*, *elegans*, and *distinctum*.

I have been enabled since my last Paper to make some additions to our knowledge of the exact habitat of some of these species, as I have received from Mr. Waterhouse a specimen of *C. smaragdulum* from the N. W. bend of the Murray River; and

I have myself caught a specimen of *C. distinctum* on the Plains of the Lower Murrumbidgee.

I may here state that I have seen specimens of *C. Spencii* and *C. carinatum* taken last spring at Wingelo, by W. J. Stephens, Esq.

I now come to the description of some insects chiefly from the northern interior, which, though they are almost identical in many respects with the genus *Carenum*, yet are so remarkable for their size and width, as to induce me to place them in another genus.

Genus Eurycaphus.

Antennæ subfiliformes, articulo primo subcrasso.

Palpi labiales subsecuriformes.

Caput subplanum latum fronte bisulcata sulcis brevibus parallelis.

Thorax transversus, angulis posticis subrectis vel subrotundatis.

Corpus apterum convexum subcirculare.

Pedes validi tibiis anticis extus bidentatis.

The points of resemblance to *Carenum* in this genus are many. The parts of the mouth are almost identical, and although the labial palpi are less securiform than in the typical species of *Carenum*, still there are several species included in this genus, in which the palpi are still less securiform.

The points of difference are in the longer and more filiform antennæ, and in the great width and circular shape of the abdomen. The thorax, too, though sometimes square, and sometimes rounded at the posterior angles, seems to be generally lobed behind as in *Carenum tuberculatum*, differing in this from most species of *Carenum*, and from all the species of *Scaraphites*, in which the base of the thorax is rather emarginate.

The difference in the form of the body betwixt the present genus and *Scaraphites*, is very marked. In the first, the abdomen is nearly circular with a piece, as it were, scooped out at the base. In the latter, the abdomen is longer than broad, and is broadest near the apex.

1.—Euryscaphus angulatus.

Niger subnitidus, thorace basi truncato angulis posticis subrectis, abdomine longiore quam latiore, elytris sub lente subtiliter striatis.

Long. 19 lin., lat. $7\frac{1}{2}$ lin.

Hab. Victoria River, Mitchell's Expedition.

The head is square, broad, and flat, with two parallel rugose sulci, joined together behind by a shallow transverse groove, and diverging in front at nearly right angles towards the anterior angles of the head. The thorax is a little broader than the head, and much broader than long. In front, it is a little emarginate, while behind, it is truncate with the posterior angles sharp, and the sides rounded off towards them. The elytra are of the same width as the thorax, a little longer than broad, very convex, and covered with very fine indistinct striæ. The fore tibiæ have three very small teeth or tubercles above the two large teeth. The intermediate tibiæ are armed externally with a short subacute tooth.

2.—Euryscaphus dilatatus.

Niger nitidus, thorace latè marginato angulis posticis reflexis rotundatis, elytris convexis striatis.

Long. 15 lin., lat. $6\frac{1}{2}$ lin.

Hab. unknown.

The head in this species is less rugose than in that just described, and wants the transverse groove behind. The thorax is much broader than long, and slightly emarginate in front, while behind, it is somewhat lobed, with the posterior angles broadly margined, rounded, and reflexed. The elytra are very convex, nearly circular, and rather distinctly striated. The fore tibiæ have three very minute teeth above the others. The intermediate tibiæ have no external tooth.

This insect, like the last and the following one, is represented by a single specimen in the Museum, but there is no label attached to it, and nothing to indicate the place where it was found.

3.—Euryscaphus minor.

Niger subnitidus, thorace marginato angulis posticis rotundatis subreflexis, elytris laevibus.

Long. 11 lin., lat. 5 lin.

Hab. Victoria River, Mitchell's Expedition.

The facial grooves are without wrinkles in this species. The thorax is very like that of the species last described, excepting that the posterior angles are less reflexed. The elytra are smooth and nearly circular, with the base scooped out. The legs are as in the last described species.

4.—Euryscaphus bipunctatus.

Niger nitidus, fronte subrugosa, thorace subsemicirculari, elytris convexis substriatis puncto in medio impressis.

Long. 15 lin., lat. $7\frac{1}{2}$ lin.

Hab. South Australia.

The head is rugose in front, and the facial grooves are not connected together behind. The thorax is almost semicircular without being lobate at the base. The elytra taken together are convex and nearly circular, with the base scooped out, while they are indistinctly marked with striæ, and have a large puncture near the centre of each elytron. The legs are wanting in this specimen.

I received this insect very lately from Mr. Waterhouse of South Australia; it adds another to the very many valuable specimens I have received from that gentleman.

To the four species just described, *Scaraphites obesus* and *Scaraphites Waterhousei* must be added, for both these insects clearly belong to this genus. The former is stated by me in a former paper to be from Swan River. I am not at all sure, however, that I am correct in that. The other *E. Waterhousei* is from Central Mount Stewart.

Of the six species now forming the genus *Euryscaphus*, *E. dilatatus*, and *E. minor* are very nearly alike. *E. bipunctatus* and *E. obesus* also closely resemble, while *E. Waterhousei* and *E. angulatus* are very distinct.

To the next genus *Scaraphites*, I have only one species to add, and I have named it from the intermediate geographical position which it seems to hold between *S. MacLeayi*, the Sydney species, and *S. rotundipennis*, the Port Phillip species.

SCARAPHITES INTERMEDIUS.

Niger nitidus, capite bifoveolato anticè rugosissimo, elytris striato-punctatis punctisque sex in margine humerali impressis.

Long. 12 lin., lat. $4\frac{3}{4}$ lin.

Hab. Illawarra and Merimbula.

The whole insect is of a glossy black. The foveæ between the eyes and the anterior part of the face are very much wrinkled and crenulated. The thorax is slightly emarginate at the base, and is marked with fine transverse striæ. The elytra are rather duller than the thorax, and are marked with fine punctured striæ. Besides these, there are series of marginal and submarginal punctures of a larger size. The marginal series consists of six or seven uninterrupted punctures close to the humeral angle, with one or two more at irregular intervals, the submarginal of six at distant and irregular intervals. The fore tibiæ are strongly and bluntly tridentated externally. The intermediate are armed with a strong subacute tooth.

I was under the impression for some time that this insect was identical with the *S. Lenœus*, of Westwood. It is evidently, however, very different. I have never seen *S. Lenœus*, but it would appear from the description to be more like to *S. latipennis*, than to any of those from the Eastern parts of New Holland, and it will certainly be found to be a Western Australian insect.

Of the nine species of which the genus *Scaraphites* is composed, four, viz., *S. Bacchus*, *S Lernæus*, *S. Silenus*, and *S. latipennis* are from the West Coast. Two, viz., *S. crenaticollis* and *S. hirtipes* are from South Australia, while the remaining three, *S. rotundipennis*, *S. MacLeayi*, and *S. intermedius* are found near the Eastern shores of this vast island.

A very ready mode of recognizing the three last named

species, without the trouble of a close examination, is to count the punctures in the lateral margins of the elytra near the humeral angles. In *S. rotundipennis* there are eleven or twelve close uninterrupted punctures, in *S. MacLeayi* there are eight or nine, while *S. intermedius* has but six, or at the most seven.

In *S. Silenus* and *S. latipennis*, the only species from the West Coast I have seen, the lateral margins of the elytra are closely punctured all round.

The genus *Scarites* is the next, and I find that I have made a very great mistake in my first paper on the *Scaritidæ*, in classing this genus among those with toothed maxillæ.

I find, as far as the Australian species are concerned, that the inner lobes of the maxillæ, though not so broadly rounded as in the genus *Carenum*, are still round at the apex and without a terminal tooth; and I find further, in page 82 of vol. I., of the Arcana Entomologica, that Mr. Westwood states he has seen Latreille's dissections of the *Scaritidæ*, and that the maxillæ of all are obtuse at the tip.

My mistake arose from my trusting too implicitly to the description of *Scarites* given in Lacordaire's "Genera des Coleoptéres," vol. I., page 195, where that author states: "Machoires arquées et aiguës au bout."

I find I have five species to describe.

1.—Scarites approximatus.

Niger nitidus, capite anticè rugoso, thorace subquadrato medio tenuiter canaliculato basi utrinque longitudinaliter impresso, corpore subcylindrico, elytris ad suturam subelevatis apice utrinque bipunctatis.

Long. 11 lin., lat. $2\frac{3}{4}$ lin.

Hab. Victoria River, Mitchell's Expedition.

The head is marked in all the species I have seen with two parallel longitudinal grooves, commencing about the middle of the forehead, and extending nearly to the clypeus, where they terminate in a transverse groove, which extends almost from side to side. In the present species the transverse groove is much corrugated towards each side. The thorax is rather longer

than broad, truncate in front, parallel-sided, rounded at the posterior angles and slightly emarginate at the base, with a slightly marked medial line, and an elongated fovea on each side of it near the base. The elytra are twice as long as broad, convex, and parallel-sided, with four large punctures near the apex, two on each elytron. The fore tibiæ are strongly tridentate.

My description is taken from a specimen in the collection of the late Mr. MacLeay, of Elizabeth Bay; but there are several specimens in the Museum marked "Hely's Expedition," which I cannot doubt to belong to the same species, though they present some slight points of difference.

2.—Scarites Waterhousei.

Niger nitidissimus, capite anticè subrugoso, thorace subquadrato posticè utrinque foveolato, corpore subcylindrico, elytris apice utrinque bipunctatis.

Long. 10 lin., lat. $2\frac{3}{4}$ lin.

Hab. near Adelaide, South Australia.

This species is of a very brilliant black, and is slightly flatter than the last. The facial grooves are also deeper and broader. The thorax is as broad as long, with the medial line well marked, and with roundish foveæ near the posterior angles. The elytra are scarcely twice as long as broad. The tibiæ do not differ from those of the last described species. This insect was sent to me by Mr. Waterhouse, of South Australia.

3.—Scarites subporcatulus.

Niger nitidus, capite fronte transversim impresso, corpore subcylindrico, elytris tenuiter porcatis apice utrinque bipunctatis.

Long. $9\frac{1}{2}$ lin., lat. $2\frac{1}{4}$ lin.

Hab. Northern Australia, Hely's Expedition.

There are two or more shallow transverse impressions on the head of this species between the two longitudinal facial grooves. The thorax is quite as broad as long. The elytra are twice as

long as broad, and have seven indistinct ridges on each. The apical punctures are in the same position as in the other species. The fore tibiæ are acutely tridentate externally.

There is one specimen of this species in the Museum. The sculpture of the elytra, and the impressions on the forehead render it easy of recognition.

4.—Scarites Jacksoniensis.

Niger nitidus, capite transversim subimpresso, thorace subquadrato, corpore subplano, elytris lævibus apice utrinque bipunctatis.

Long. 11 lin., lat. $3\frac{1}{2}$ lin.

Hab. Lane Cove, Port Jackson.

The head in this species is also slightly impressed between the longitudinal grooves, and is very slightly, if at all, corrugated. The thorax is very slightly emarginate at the base, with longitudinal foveæ near the posterior angles. The elytra are smooth, with the apical punctures small, the one nearest the apex being the largest. The fore tibiæ are bluntly tridentate.

This species was presented to the Museum by Mr. M'Intosh, of Lane Cove; another insect from the same place also in the Museum, differs so much from the one now described as to look like another species, until, however, other specimens are procured, it will be impossible to judge with accuracy.

5.—Scarites planiusculus.

Niger subnitidus planus, thorace subtransverso, elytris subtilissimè striolatis apice utrinque bipunctatis.

Long. 11 lin., lat. $3\frac{1}{2}$ lin.

Hab. Victoria River, Mitchell's Expedition.

The only known specimen of this insect is in the Museum. It is the flattest of the genus, and is of a rather dull black. The head is broad, and almost without wrinkles in front. The thorax is broader than long, truncate in front, and slightly emarginate at the base, with the posterior angles rounded. The elytra present the appearance, under a powerful lens, of being covered with a great many short longitudinal scratches, while the most

forward of the apical punctures are further from the apex than in the other species. The fore tibiæ are rather bluntly tridentate.

We have now eight Australian species of *Scarites*, and there is such a remarkable similarity in their general appearance, with such an utter absence of satisfactory specific characters, that it is no easy task to give descriptions which will render the species easily recognizable. The student will, however, be materially assisted by bearing in mind one or two points—.In the first place, the eight species may be divided into those of subcylindric form, or those which are comparatively narrow and convex, and those which have a somewhat flattened aspect.

The first of these sections will comprise *C. cacus*, *approximatus*, *Waterhousei*, and *subporcatulus*.

The second will consist of *S. Geryon*, *Damastes*, *Jacksoniensis*, and *planiusculus*.

In endeavouring to carry this analysis further, it will be well to bear in mind the peculiar sculpture of the head, which, up to a certain point, is the same in all the species. Thus we find in *S. Cacus* that there is an utter absence of wrinkles or corrugations about the anterior part of the head, while in *S. approximatus* the corrugations are very marked. Again, *S. Waterhousei* differs from both, in having the facial grooves broad, deep, and but slightly corrugated. *S. subporcatulus*, the remaining species of the first section, is in other ways so distinct, that it is unnecessary here to point out its facial peculiarities.

In the second section the same variation in this particular exists in the different species. *S. Geryon* has the whole anterior part of the face corrugated. *S. Damastes* has the same in a much less degree. *S. Jacksoniensis* is marked by a transverse impression between the facial canals, while *S. planiusculus* has the head broad, flat, and only corrugated in the slightest degree.

I merely point out these as the shortest and readiest modes of identification. Of course, where the species are good, a close investigation may detect many points of difference.

I have only one *Gnathoxys* to describe, a species from the Murrumbidgee, in the late Mr. MacLeay's collection. I also find in that collection a species from Swan River, which, though somewhat smaller, I believe to be the *G. obscurus* of Reiche.

GNATHOXYS MURRUMBIDGENSIS.

Niger nitidus, capite anticè breviter bisulcato, thorace basi marginato reflexo, elytris subseriatim punctato-foveolatis posticè granulatis, tibiis anticis apice unidentatis medio anticè et externè bidentatis.

Long. 8 lin., lat. $2\frac{3}{4}$ lin.

Hab. Murrumbidgee.

This species is entirely of a shining black, with perhaps a very slight bronzy lustre. The head is drooping, the face being at right angles to the body. The facial grooves are very short and parallel. The thorax is longer than broad, rather convex, truncate in front, and rather rounded at the posterior angles, with the base broadly margined and reflexed, and the dorsal line but slightly marked. The elytra are nearly twice as long as broad, convex, truncate at the base, rounded at the apex, and parallel-sided, with four irregular rows on each of punctured foveæ and with the sides and apex coarsely granulated. The fore tibæ are tridentate externally, the apical tooth being formed by a broad extension of the apex of the joint, while the other two are small and situated in the middle of the joint; there are also two or three small teeth on the anterior surface of the tibiæ near the middle. The mandibles are blunt at the apex. The maxillary palpi have the last joint triangular, while the labial are strongly securiform.

I have no addition to make to the genus *Cerntoglossa* at present, and I find myself compelled again to defer any attempt to describe the Australian species of *Clivina*. M. Putzeys, it appears, has lately described four species of Australian *Clivinæ*, under the names of *C. suturalis, planiceps, elegans*, and *atrata*, and until I can procure his descriptions of these species or can ascertain to what insects they refer, it would be obviously useless for me to meddle with the genus at all. I am enabled, however, to describe one species of *Dyschirius*, as I am aware that no Australian species of that genus has hitherto been known.

DYSCHIRIUS STEPHENSII.

Niger nitidus, elytris seriatim punctatis posticè laevibus

Long. 1 lin., lat. $\frac{1}{3}$ lin.

Hab. near Sutton Forest.

This very small insect was found by W. J. Stephens, Esq., in damp ground early last spring. It is of a brilliant black, with a very slight bronzy lustre. The thorax is very globular. The elytra are marked at the base with regular rows of large punctures, towards the apex these punctures or foveæ disappear. As it is the only Australian species of the genus, a minute description is unnecessary.

Since the foregoing was in type, I have thought it advisable to subjoin a complete catalogue of the Australian Scaritidæ as at present known.

Genus CARENUM.

A.—Tibiæ anticæ extus bidentatæ.

Thorax longer than broad, body elongated.

- Elytra with four punctures.
  - C. quadripunctatum, *MacL. jun.*, P. Denison.
  - —. scaritioides, *Westw.*, N. S. Wales.
  - —. atronitens, *MacL. jun.*, Gawler Town, S.A.
  - —. oblongum, *MacL. jun.*, Adelaide.
  - — intermedium, *Westw.*, Victoria.
  - —. nigerrimum, *MacL. jun.*, South Australia.
  - —. ambiguum, *MacL. jun.*, K. G. Sound.
  - —. subquadratum, *MacL., jun.*, S. Australia.
  - —. striato-punctulatum, *MacL. jun.*, Murrum.
  - —. coracinum, *MacL. jun.*, Moreton Bay.
- Elytra with two punctures.
  - C. tinctilatum, *Newm.*, N. S. Wales.
  - —. bipunctatum, *MacL. jun.*, Port Denison.
  - — substriatulum, *MacL. jun.*, Richmond R.
  - —. subrugosulum, *MacL. jun.*, New Holland.
  - —. glaberrimum, *MacL. jun.*, N. S. Wales.
  - —. undulatum, *MacL. jun.*, Wingelo.
- Elytra without punctures.
  - C. violaceum, *MacL. jun.*, South Australia.
  - —. splendidum, *MacL. jun.*, K. G. Sound.
  - —. cupripenne, *MacL. jun.*, K. G. Sound.
  - —. megacephalum, *Westw.*, Port Essington.
  - —. elongatum, *MacL. jun.*, South Australia.
  - —. gagatinum, *MacL. jun.*, South Australia.

- Thorax broader than long, body oval.
  - Elytra with four punctures.
    - C. Bonellii, *Westw.*, N. S. Wales.
    - —. affine, *MacL. jun.*, N. S Wales.
    - —. viridipenne, *Westw.*, New England.
    - —. anthracinum, *MacL. jun.*, S. Australia.
    - —. sumptuosum, *Westw.*, Port Essington.
    - —. Riverinæ, *MacL. jun.*, Lower Murrum.
    - —. interruptum, *MacL. jun.* Wingelo & Dabee.
    - —. obscurum, *MacL. jun.*, N. S. Wales.
    - —. simile, *MacL. jun.*, Moreton Bay.
  - Elytra with two punctures.
    - C. marginatum, *Westw.*, N. S. Wales.
    - —. laevigatum, *MacL. jun.*, S. Australia.
    - —. puncticolle, *MacL. jun.*, S. Australia.
    - —. punctulatum, *MacL. jun.*, Byalla.
    - —. scitulum, *MacL. jun.*, Moreton Bay.
    - —. Murrumbidgense, *MacL. jun.*, Murrum.
    - —. laterale, *MacL. jun.*, New Holland.
    - —. subporcatulum, *MacL. jun.*, Wide Bay.
    - —. striato-punctatum, *MacL. jun.*, D. Waters,
    - —. frontale, *MacL. jun.*, Walleroo, S.A. [N.A.
  - Elytra without punctures.
    - C. politum, *Westw.*, V. D. Land.
    - —. perplexum, *White*, King George's Sound.
    - —. laevipenne, *MacL. jun.*, K. G. Sound.
    - —. subcostatum, *MacL. jun.*, Clarence River.

B.—Tibiæ anticæ extus tridentatæ.

- Elytra smooth and polished.
  - Elytra with four punctures.
    - C. cyaneum, *Fab.*, New Holland.
  - Elytra with two punctures.
    - C. coruscum, *MacL. jun.*, N.C. New Holland.
    - —. smaragdulum, *Westw.*, South Australia.
    - —. elegans, *MacL. jun.*, Victoria River.
    - —. distinctum, *MacL. jun.*, Murrumbidgee.
    - —. campestre, *MacL. jun.*, Lower Murrum.
- Elytra rough.
  - Elytra marked with depressions.
    - C. deauratum, *MacL. jun.*, Warroo River.
    - —. gemmatum, *Westw.*, Port Essington.
    - —. foveolatum, *MacL. jun.*, N.E. Coast N.H.
    - —. Spencii, *Westw.*, N. S. Wales.
    - —. loculosum, *Newm.*, Port Phillip.
    - —. variolosum, *MacL. jun.*, Murrumbidgee.
  - Elytra marked with elevations.
    - C. tuberculatum, *MacL. jun.*, Murrumbidgee.
    - —. carinatum, *MacL. jun.*, Wingelo.

C.—Tibiæ anticæ extus multidentatæ.

- Thorax rectangular.
  - Elytra with two punctures.
    - C. rectangulare, *MacL. jun.*, S. Australia.

Genus EURYSCAPHUS.

E. obesus, *MacL. jun.*, Swan R. (?)
—. Waterhousei, *MacL. jun.*, Central Mount Stewart.
—. angulatus, *MacL. jun.*, Mitchell's Exp., V. River.
E. dilatatus, *MacL., jun.*, N. Holland.
—. minor, *MacL., jun.*, Mitchell's Exp., Victoria River.
—. bipunctatus, *MacL. jun.*, South Australia.

Genus SCARAPHITES.

S. Bacchus, *Westw.*, Swan River.
—. Lenaeus, *Westw.*, Swan River.
—. Silenus, *Westw.*, Swan River.
—. latipennis, *MacL. jun.*, K. G. Sd.
—. crenaticollis, *MacL. jun.*, S. A.
S. hirtipes, *MacL. jun.*, S. A.
—. rotundipennis, *Dej.*, Pt. Phillip.
—. MacLeayi, *Westw.*, Sydney.
—. intermedius, *MacL. jun.*, Illawarra.

Genus SCARITES.

S. Cacus, *MacL. jun.*, Port Denison.
—. approximatus *MacL. jun.* Mitchell's Expedition, Victoria River.
—. Waterhousei, *MacL. jun.*, Adelaide
—. subporcatulus, *MacL. jun.*, N. A., Hely's Expedition.
S. Geryon, *MacL. jun.*, U. Darling.
—. Damastes, *MacL. jun.*, Murrum.
—. Jacksoniensis, *MacL. jun.*, Lane Cove, Sydney.
—. planiusculus *MacL. jun.* Mitchell's Expedition, Victoria River.

Genus GNATHOXYS.

G. granularis, *Westw.*, Pt. Essington.
—. irregularis, *Westw.*, Pt. Essington.
—. obscurus, *Reiche*, Swan River.
—. cicatricosus, *Reiche*, Swan River.
—. insignitus, *MacL. jun.*, King George's Sound.
G. humeralis, *MacL. jun.*, S. A.
—. barbatus, *MacL. jun.*, S. A.
—. submetallicus, *MacL. jun.*, S. A.
—. tessellatus, *MacL. jun.*, Paramatta.
—. Murrumbidgensis, *MacL. jun.*, Murrumbidgee.

Genus CERATOGLOSSA.

C. rugiceps, *MacL. jun.*, Murrumbidgee.
C. foveiceps, *MacL. jun.*, Richmond R.

Genus CLIVINA.

C. basalis, *Chaud.*, N. Holland.
—. Australasiæ, *Bohem.*, N. Holland.
— suturalis, *Putz.*, N. Holland.
C. planiceps, *Putz.*, N. Holland.
—. elegans, *Putz.*, N. Holland.
—. atrata, *Putz.*, N. Holland.

Genus DYSCHIRIUS.

D. Stephensii, *MacL. jun.*, near Sutton Forest.